

**Mask blank for use in EUV lithography and method for its production****Abstract**

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This invention relates to a mask blank for use in EUV lithography and a method for its production.

The mask blank comprises a substrate with a front side and a rear side whereby a coating is applied to the front side for use as a mask in EUV lithography and the rear side of the substrate comprises an electrically conductive coating. The electrically conductive coating is particularly abrasion resistant and strongly adhesive according to DIN 58196-5 (German Industry Standard), DIN 58196-4 and DIN 58196-6 and characterised by a minimum electrical conductivity. The electrically conductive coating is applied by means of ion-beam-assisted sputtering.

Since the electrically conductive coating on the rear side is so abrasion resistant and strongly adhesive, the mask blank may be gripped, held and handled by means of an electrostatic holding device (chuck) without any troublesome abrasion occurring.